

## **SHORELINE REFINERY CADDO PARISH**

This 107 acre site was operated as a fuel oil refinery from 1920 to 1940. The process equipment and storage tanks have been dismantled and removed. Some of the concrete foundations of the refinery facilities are still in place in the former process area. There was a pile of semi-impounded acidic black sludge (up to eight feet deep) enclosed in a five and a half acre fenced area. A 150 by 50 foot waste pond located to the south of the waste pile contained oily wastes. Another impoundment southeast of the waste pond may have been used for cooling process water. This impoundment measures 100 yards by 50 yards. The Environmental Protection Agency completed a Preliminary Assessment on 6/23/88. EPA's contractor detected hydrogen sulfide levels as high as 3000 ppm while sampling the sludge pile. Analysis of the sludge detected a pH < 2, benzo(a)pyrene at 164 ppm, hydrogen sulfide at 1160 ppm, chromium at 55 ppm and lead at 252 ppm. Manville Forest Products Corporation bought the old refinery land from Olin Corporation in 1965 as part of a 35,000 acre land purchase. Manville entered into negotiations with EPA which resulted in Manville installing a system of ditches and berms to direct surface water around the waste pile in 1990. A chain link fence was installed to restrict public access to the sludge. EPA referred the site to the state on Nov. 16, 1990. The site is on an active oil production field. A large crude oil storage tank, a truck loading terminal, and several smaller vertical storage tanks are presently located on the former refinery site.

DEQ completed a Phase I Site Assessment on 11/5/93. Property records indicate the refinery was bought by Crystal Oil in 1926. Leonard Construction acquired the site between 1935 and 1937. The site returned to Crystal in 1944. Crystal sold the property to Olin in 1965. Olin sold the site to Manville Forest Products. Manville Forest Products changed its name to Riverwood International. Demand Letters for site remediation were sent to Riverwood International, Olin Corporation, and Leonard Construction Company on August 30, 1996.

Riverwood International volunteered to perform a waste volume and treatability study on the sludge field and the waste pond. The field work in conjunction with this study was conducted in January and February of 1998. The resulting Waste Inventory and Treatability Study Report estimated that 10,000 cubic yards of sludge and an additional 16,000 cubic yards of contaminated soil were present under the sludge pile. Oily waste and contaminated soil volume in the waste pond was estimated to be approximately 900 cubic yards. The results from the treatability study indicated that the sludges in the waste pile could be treated with lime and portland cement or Class A Fly Ash.

On July 10, 2000, Riverwood entered into a Settlement Agreement with DEQ to neutralize and solidify sludges and oil saturated soils from the sludge pile and the waste pond and then cap this material with clay. The neutralization and solidification of the sludges and oil saturated soils was completed in December of 2001. The solidified material was placed in a two and one half acre portion of the former waste pile and compacted. The compacted material was covered with a geosynthetic/clay cap and will be surrounded with a chain link fence.

**SHORELINE REFINERY**  
**PHOTOS**



Photo 1: Sludge field looking south from the center of the field prior to remediation.



Photo 2: Sludge field looking northwest from the center of the field prior to remediation.



Photo 3: Sludge field looking northeast from the center of the field prior to remediation.



Photo 4: Sludge field looking southwest from the center of the field prior to remediation.



Photo 5: Geosynthetic liner installation.



Photo 6: Capped consolidated sludge and oily waste viewed from northwest to southeast.